REMARKS

Introduction

Receipt of a final office action dated June 30, 2004 is acknowledged. In the action, claims 11, 31, 32, 34, 37, 38, and 40-43 were rejected as allegedly obvious over Laxminarayan *et al.* (*J. Biol. Chem.*, 268:4968-4974 (1993)) or Palmer *et al.* (*J. Biol. Chem.*, 269:340303410 (1994)), in view of GenBank Accession No. AAB03214. Additionally, claims 36 and 39 were deemed allowable.

Status of the Claims

In this response, applicants amended claims 11, 37 and 40 and rewrote claims 36 and 39 in independent form. Support for amended claim 11 can be found on page 14, line 8 of the instant specification. Support for revised claims 37 and 40 can be found in originally filed claims 37 and 40, respectively.

Because the foregoing amendments do not introduce new matter, entry thereof by the Examiner is respectfully requested. Upon entry of this amendment, claims 11, 31, 32, 34, 36-39, and 40-43 will be under examination.

35 U.S.C. § 103

Claims 37-38 were rejected under 35 U.S.C. § 103 as allegedly obvious over Laxminarayan, in view of GenBank Accession AAB03214. Also, claims 40-41 were rejected as allegedly obvious over Palmer and GenBank Accession AAB03214, and claims 11, 31-32, 34 and 42-43 were rejected as allegedly obvious over Palmer and GenBank, and further in view of Bost *et al.* (*Immunol. Invest.*, 17:577-586 (1988)), Bendayan (*J. Histochem. Cytochem.*, 43:881-886 (1995)) and Ramakrishnan *et al.* (U.S. 5,817,310)). Applicants respectfully assert that the cited references do not render the claimed invention obvious and request reconsideration and withdrawal of the rejections.

To establish a *prima facie* case of obviousness, there needs to be (1) some suggestion or motivation to modify the reference or to combine reference teachings, (2) a reasonable expectation of success, and (3) the prior art references, when combined, must teach or suggest all the limitations of the claimed invention. *See* MPEP §2143 (Aug. 2001). "Both the

suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Applicants respectfully assert that the examiner has not met his burden.

As pointed out in a previous office action, Laxminarayan and Palmer do not disclose a polypeptide comprising the amino acid sequence of SEQ ID No. 1, or a polypeptide comprising a naturally occurring sequence at least 90% identical to the amino acid sequence of SEQ ID No. 1 having the relevant activity. Paper No. 12 at 6 and 8. Furthermore, the deficiency in these teachings cannot be found, either explicitly or implicitly, in the cited GenBank reference. Ramakrishnan, Bost and Bendayan also do not compensate for deficiencies in Palmer and the GenBank citation.

As conceded by the examiner, the GenBank reference shares sequence identity with only portions of SEQ ID NO. 1 and not over the <u>full length</u> sequence of SEQ ID No. 1. See Paper No. 12 at 6. In addition, the GenBank reference does not disclose a sequence which is at least 95% identical over the full length amino acid sequence of SEQ ID No. 1, wherein the sequence has phosphatidylinositol 4,5-bisphosphate 5-phosphatase activity. Therefore, applicants amended the claims to more clearly recite the present invention and claim at least 95% sequence identity over the entire amino acid sequence of SEQ ID No. 1.

However, the presently claimed antibodies are drawn to an antibody which specifically binds to a polypeptide consisting essentially of the amino acid sequence of SEQ ID NO: 1 or a polypeptide consisting essentially of an amino acid sequence at least 95% identical over the full length amino acid sequence of SEQ ID NO: 1. Thus, amended claim 11 and the claims dependent thereon are not obvious over the cited publications.

CONCLUSION

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and arguments.

It is respectfully urged that the present application is now in condition for allowance. Early notice to that effect is earnestly solicited.

The examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.